

Missouri Water Utility Partnership - July 8, 2010



Project Size: \$ 62,000,000

Annual Savings				
City	kilowatt Hours Electricity	Hundred Cubic Feet Natural Gas or Propane	Mgals Water	Dollars
Columbia	3,097,000	N/A	N/A	\$309,700



Water Treatment Plant

- Completed an inventory of necessary lighting levels; savings achieved from adjusting lighting to appropriate levels throughout the plant – 12.87 kW reduction estimated
- Used DOE MotorMaster to develop a complete inventory & profile of motor utilization; tool helps Utility with cost-payback & lifecycle cost analysis

Wastewater Treatment Facility

- Aeration System improvements reduce power consumption by 1,875,000 kWh/yr
- Final Sludge Pumping Station improvements reduce power use by 400,000 kWh/yr
- Digester Complex improvements provide for increased methane gas utilization & increase electricity production capability by 1, 182,600 kWh/yr
- Biosolids Cake Dewatering Program reduces waste quantity; reduces truckloads hauled per day & total carbon emissions by 70%



Business Model:	Design – Bid – Construct
Prime Contractor:	Black & Veatch
Utility Partners:	City of Columbia Water & Light Department
Funding Sources:	(1) Missouri DNR SRF; (2) Energy Efficiency & Conservation Block Grant (DOE)

This will prevent the following greenhouse gases from being released into the atmosphere

